

## The Indo-U.S. Nuclear Deal: What is There?

by Annpurna Nautiyal

*Strategic Insights* is a bi-monthly electronic journal produced by the [Center for Contemporary Conflict](#) at the [Naval Postgraduate School](#) in Monterey, California. The views expressed here are those of the author(s) and do not necessarily represent the views of NPS, the Department of Defense, or the U.S. Government.

### Introduction

The statements coming from the Bush administration about the importance of the landmark nuclear deal and the alarm and the worries about the valuable time being wasted by India in approving the deal, and dilly-dallying in talks with the IEAE, NSG and India's response and attempts to assure Bush administration about its intents, all pose many questions about the new turn in Indo-U.S. relations and the nuclear deal. What are the anxieties, issues and concerns being voiced both in India and the United States about the deal and why India needs to complete the agreement within the time limit given by the United States?

Actually the eagerness of the Bush administration for moving ahead with the deal being reflected through the sentiments expressed from time-to-time by U.S. officials and recently through U.S. Secretary of State Condoleezza Rice's statement that "it is a landmark agreement which is good for both sides—we will continue to work on that agreement"[1] has also allowed people in India to discuss and probe the reasons of such significance of the deal for the United States. On the other hand, India's UPA (United Progressive Alliance) government's approach towards the United States, helpless in view of the domestic political uncertainty and the dilemma about completing the formalities of the deal in time, also demands attention.

There is no denying the fact that India's relations with the United States have entered a new phase in the present era. In fact, a decade before no one could have imagined that the United States would be so keen to develop very close ties and a strategic partnership with India, and that U.S. officials, particularly U.S. Secretary of State Condoleezza Rice, would opine that the United States aims to assist India emerge as a major power in the twenty-first century.

The momentum in defense and strategic ties between the two and the change in U.S. perceptions about India is unprecedented, as until recently, India and the United States, due to their multifarious differences, were considered to be 'estranged democracies'—but the agreement on civil nuclear technology by bringing a transformation in their relationship, has made them 'engaged democracies.' [2]

The changing opinion of the Bush administration about India's capabilities, its desire to work together for the maintenance of peace, security, anti-terrorism, and economic growth, has allowed India and the United States to work collectively on these and many other issues. Although the courting of India by the United States is also being seen as a strategy of balancing Chinese power and other axis-of-evil countries in Asia as well as consolidating India as a friendly country within the United States' designs of global partnership; however, in view of the concerns being raised about the nuclear deal which was signed during President Bush's visit to India in

March 2006, India needs to move cautiously. This article attempts to discuss the issues, anxieties, concerns and hiccups regarding the nuclear deal which would ultimately also decide the future of Indo-U.S. relations.

## **Unusual and Unexpected Move of the Bush Administration**

The move of the Bush administration concerning the nuclear deal is being considered as unusual because the nuclear relationship between India and the United States has historically been one of the prime factors responsible for India's problematic relations with the United States. Interestingly, India, which is currently being lured and pressurized by the United States for signing the nuclear deal in time, has most of the time been subjected to the United States' sanctions, pressures and consequent denial of high technology because of its nuclear program, and decision to not to sign the highly discriminatory NPT (Nuclear Non-Proliferation Treaty).

Since India has developed most of its nuclear program indigenously, therefore, India has always opposed the IAEA (International Atomic Energy Agency) guidelines on nuclear safeguard, control, and inspection systems in its nuclear plants. As a result of this India not only lacked access to the IAEA trade, but also found it difficult to get the supplies needed for running its nuclear plants which have always been considered very crucial for meeting India's energy needs. Ironically, India's nuclear program like the prestigious Indian Institutes of Technology (IITs) was initiated with U.S. help.

The Tarapur nuclear reactor was also built in the 1960s with U.S. support however, as per the conditions of the agreement, U.S. fuel supplies to this reactor had never been consistent. India has always felt let down by the inconsistency of U.S. policy and its tendency of backtracking from its commitments. India's disappointment and dejection towards the United States could be understood easily as the United States could never honor its treaty commitments of supplying nuclear fuel to the nuclear plants of India. Due to the unpredictability of U.S. behavior it was natural for India to see the United States as an unreliable friend and to thus look for other sources to fulfill its needs. More so India also has reasons to believe that the United States has relentlessly used harsh measures towards its nuclear policy and tests without realizing the reasons therein but it has never acted with the same alacrity and intolerance towards the other proliferators.

The U.S. administrations have subtly indicated their intolerance towards the increasing nuclear potential of India by imposing sanctions in 1974 as a reaction to India's first nuclear test (PNE), and then in 1998 in response to India's second nuclear test the United States permanently suspended nuclear fuel shipments to India. In view of the tough policy line and the aim of U.S. administrations to cap, stop and completely roll back India's nuclear program as well as the bitterness and lack of trust between the two states, the policy measures adopted by the Bush administration not only appeared different but also generated an interest in all the quarters. The United States under the leadership of Bush has not only exhibited an interest in developing close relations with India but also a sympathetic appreciation of India's growing energy needs and problems. As the nuclear issue was considered a basic irritant in U.S.- India relations therefore, the Bush administration wanted to move beyond this by negotiating and signing the civil nuclear deal with India so that India could also become a responsible stakeholder in the proliferation regime.

The U.S. interest in improving its relations with India was also reflected in the U.S. desire of motivating India to play a global role and acquire its place in the diplomatic world by becoming a strategic partner of the United States, and to fulfill the U.S. global agenda and interests. As a result of these expectations, and America's strategy to rope in India as a (junior) partner to fulfill its global designs, the civil nuclear deal came in to existence. The Bush administration in view of India's problems about the flow and continuity of the nuclear fuel has emphasized that the 123

Agreement (the present nuclear deal, named for a clause in the Atomic Energy Act), is meant to provide India with the means to produce clean energy, a major source to sustain India's economic growth and also to curb the emission of gases responsible for the global warming. It is also being seen as an act of tacit recognition of India as a responsible nuclear power by the United States.[3]

As the United States aspired to stop, cap, and roll back India's nuclear program therefore, to evolve a middle path and also to avoid U.S. annoyance and pressures, India had extensive dialogues on the nuclear issue with the United States during the NDA government under the leadership of Atal Bihari Bajpayee. The several rounds of Jaswant Singh-Strobe Talbot talks about the nuclear issue during the Clinton administration stand in testimony to this exercise but these could not cut much ice and relations remained strained. Though President Clinton's visit to India in March 2000, the first undertaken by any U.S. President after a gap of 22 years, promoted the movement of relations in a positive and upward direction; but the disagreements and doubts remained in tact. President Bush, in order to fulfill the already fixed policy objectives of developing close relations with India and removing acrimony in their relationship, instead of putting pressure on the nuclear issue, preferred to adopt some other methods to bring India under the nuclear regimes. The nuclear agreement initiated during Indian Prime Minister Man Mohan Singh's visit to the United States in July 2005, and finalized during President Bush's visit to India in March 2006, was therefore termed as exceptional and unique because it was with a non-NPT signatory country and U.S. law prohibits any agreement with the countries that refuse to follow the guidelines of the IAEA, and thus not sign the NPT.

When Bush initiated the prospects of normalizing U.S. -India Civil nuclear relations and ending India's nuclear segregation from the rest of the world, he made it clear that the motive behind the move was to assist India in achieving its dream of becoming a major power in the twenty-first century. It also aimed to provide opportunities for prosperity and stability for people of both the countries and to work for spreading democratic values throughout the world. The need for a greater collaboration and cooperation with India in infrastructural development, counter-terrorism, defense and security cooperation, transforming India's rural agricultural economy by increasing its productivity and bringing suitable changes in its education system, were also stressed as the other important objectives of U.S. policy in the new era.

The U.S. policy moves aiming to enable India to overcome obstructions for its global aspirations were seen as important for U.S. interests in the post-Cold War era of changing priorities and developing new alliances and friendships. As these moves, especially after the 9/11 contours of U.S. policy, were not only unexpected and unusual but took the majority of think tanks and policy analysts by surprise. Though a long historical legacy of bitterness, uncertainties, distance and differences among the world's oldest and largest democracies was not that easy to overlook, yet the civil nuclear deal, despite the inherent controversies, has certainly opened a new vista for the relationship between India and the United States.

### **Advantages of the Nuclear Deal to India and the United States**

Under the new civil nuclear agreement, India has agreed to separate its civilian and military programs and to put two-thirds of its existing reactors, and 65 percent of its generating power, under permanent safeguards with international verification, and in return the United States would be under commitment to supply nuclear fuel and technology to India.

This is very vital for India, because one of the biggest constraints for the continuing success of its fast-growing economy is the electricity shortage. Nuclear energy, which at present accounts for only about 3 percent of India's total electricity generation, is an attractive alternative to coal and expensive imported oil and gas. The fourteen nuclear power plants India has agreed to put under International Atomic Energy Agency (IAEA) safeguards exemplify approximately 3,000 megawatts or 3 gigawatts of generating capacity. By 2020, India plans to add another 12-16

gigawatts of nuclear generating capacity to increase its current capacity.[4] As presently nuclear power plays a very marginal role in India's growth, therefore in some quarters it is also being felt that even by 2020, nuclear power will contribute only about seven percent of India's total generating capacity and thus would make only a very marginal difference in India's electricity scene.

It is also being argued that though the nuclear power could help India in addressing its energy problems to some extent, but it would not make a major difference in the energy sector and also contribute a little to satisfy the needs of its transportation sector. But on the other hand it is being believed by the supporters of nuclear energy that in the future, nuclear power might play an even bigger role. In view of the various problems associated with the other sources of energy and to satisfy India's huge population's growing energy needs, projected to increase four-fold within 25 years, this group believes that without aggravating its dependence on oil from the Middle East or excessively contributing to pollution and global warming, the growing energy needs could be fulfilled by using the nuclear energy.[5]

Unfortunately, though, 17 percent of the world's population resides in India but it has a very trivial portion of the world's oil and gas reserves. Therefore in the absence of a reliable source of electricity, industries and households mostly are dependent on scarce and costly energy sources like petroleum, natural gas and coal to produce electricity to meet its requirements.[6] In view of India's dependence on imported oil, gas and coal to produce electricity which is not a very practical alternative for meeting India's rapidly increasing electricity and energy needs, it is being opined that these limited sources, besides hampering India's growth and development, would also add to India's mounting pollution problems. They also argue that though coal would continue to be a major source of fuel for generating electricity, that the increasing prices of petroleum and natural gas and the need to control and manage the problem of pollution would push India like other countries to adopt cleaner means of generating electricity. In fact the worries about growing pollution levels have also forced as many as thirty countries in the world to restart their nuclear power plants. Presently the United States is the biggest producer of nuclear energy, with 103 nuclear power plants and 27 percent of the global nuclear generating capacity, and rising natural gas prices have contributed to extensions of nuclear plant licenses in the United States, the United Kingdom, and Germany. China, with just nine nuclear power plants also intends to build thirty new nuclear plants by 2020.[7]

In view of the scarcity of alternative sources of electricity generation and India's mounting energy needs to match its economic progress India has perceived this agreement as a means of fulfilling its energy needs. The United States, on the other, hand has been viewing it as a tool to bring India under the control and obligations of the nuclear regimes. In view of India's energy-related problems, this agreement appears to have transformed their relationship by fulfilling the objectives of both the countries. As on the one hand, it would end India's isolation, help it acquire high-technology, and reduce its dependence on oil from the Persian Gulf; and on the other, it would bring India under the IAEA inspection and control system, and prove economically beneficial for the United States, too.[8] Due to this fact the deal was welcomed by Mohamed El Baradei, Director of the International Atomic Energy Agency. In his opinion "the nuclear deal would bring India closer as an important partner in the non-proliferation regime and which would be a milestone, timely for ongoing efforts to consolidate the non-proliferation regime, combat nuclear terrorism and strengthen nuclear safety." [9] The forty-five nation Nuclear Suppliers Group (NSG), such as France, Russia and the United Kingdom, also did not take much time in expressing their support for the Indo-U.S. nuclear deal but on the other hand Canada and China, both NSG members, expressed their reservations about this deal.

The U.S. Secretary of State Condoleezza Rice[10] while arguing in favor of the Indo-U.S. strategic partnership and the civil nuclear deal, stressed that India has a record of thirty years of responsible behavior on proliferation matters, and the agreement would make the world, and the future of India and the United States, safe. While naming the agreement as unique, Rice also

emphasized that India's uniqueness as a country, as a democracy with an accountable and transparent government encouraged the United States to move forward for this agreement. In her view point other countries like North Korea and Iran that had also been seeking to develop their programs on the basis of this agreement do not fall in this category, because Iran is a state that promotes terrorism, and North Korea is the least transparent state, threatens its neighbors, and proliferates weapons. She also felt that by satisfying India's energy needs, it would end its dependence on fossil fuels and ease the environmental impact of India's vibrant economic growth; and, on the other hand, it would also help the U.S. economy and enhance the employment and job prospects for the American people also. The nuclear deal grants India the facility of reprocessing the nuclear fuel acquired from the external sources, a concession the United States has presently given only to Japan and European countries. In accordance to the deal the United States would also help India to find fuel if the United States cuts off the supply for any reason particularly if India tests a nuclear weapon. In the viewpoint of several scholars, the reason for the U.S. willingness to take these steps lies in the fact that lately it has started to recognize India as an important strategic bulwark and an answer against a growing Chinese power and highly unstable and unpredictable Pakistan. India 's million-man army, the world's fourth largest, and its blue-water navy make it a natural buffer as well as a sentinel on the trade route between East Asia and the Middle East. The United States believes that a demographically and economically vibrant India could serve as a counterweight to expanding Chinese influence in Southeast Asia as well as Beijing's great-power ambitions around the globe. [11] U.S. Ambassador to India David Mulford has also accepted that the United States by adopting such policy moves towards India has succeeded to a large extent in de-hyphenating its relationship with India and Pakistan.[12]

Interestingly, now the United States has also tacitly acknowledged India as a responsible state with advanced nuclear know-how, but it has very diplomatically avoided accepting India as the sixth nuclear weapons state. The U.S. stand also makes the nuclear deal noteworthy. It clearly shows that America has agreed to help India acquire the same benefits and advantages as other states with nuclear weapons. India would also be granted full civil nuclear energy co-operation, fuel supplies and the transfer of technology, etc., but the United States would not like to undermine the conditions of the NPT by recognizing India as a sixth nuclear state. In some quarters it is believed that the present U.S. policy, like the NPT which created two classes of states, the nuclear haves and the have-nots, would once again create two classes of the non-NPT signatories, "responsible" non-nuclear states such as Japan and the EU countries which are allowed to conduct plutonium reprocessing and uranium enrichment for their civilian programs, and other countries like Iran which are denied this right because of the feeling that they may use their potential to acquire nuclear weapons. [13] In view of this duplicity, it can be said that a country can not be assured of obtaining full fuel cycle facilities by just signing the NPT or the IAEA safeguards system but its political system and proximity to the western countries would also matter in deciding its suitability for access to the dual use potential sensitive technologies. However some other scholars have opined that the July 18, 2005 agreement for a civil nuclear deal with the United States has heralded India's strategic liberalization, and has also ensured substantial gains such as the import of nuclear fuel, etc. They feel that an enabled India, free of technology denial restraints and of the category of the strategic outcast, would not only emerge as an important state in the twenty-first century but also help multi-polarity to become a reality at the global level.[14]

## Problems

However, despite the benefits for India and the United States by the nuclear deal it is also being felt that the nuclear deal with India not only threatens to demolish the global nuclear regimes but would also encourage other countries to go for their nuclear programs as India is one of the countries which have not signed the NPT. The U.S. Nuclear Nonproliferation Act also aims to prevent proliferation by denying access of nuclear technology and nuclear materials for the states that have refused to sign the NPT. To strengthen controls on export of the nuclear technology and materials to such countries the Nuclear Suppliers Group in the mid-1970s was established by



the United States. And it is also true that despite creating two classes of states and being a highly discriminatory treaty, the NPT has survived because no major power has remained outside of it to defy it. Actually the P-5 have shown very little interest in linking the vertical and horizontal proliferation with the result the NPT has become a purely horizontal nonproliferation instrument.  
[\[15\]](#)

Though there is no denying the fact that NPT has also remained unsuccessful in controlling the proliferation of nuclear weapons as both signatory and non signatory countries have violated the norms of the treaty. China and France, signatories to the NPT, have helped Israel and Pakistan, non-signatories of the NPT, to carry forward their nuclear program as well as to acquire nuclear weapons technology. Likewise Iran and North Korea which have signed the NPT have used nuclear technology, equipment and fuel meant for civilian nuclear power programs to expand the nuclear weapons programs.

It is ironic that despite the failure of the NPT in controlling the proliferation of the nuclear weapons and technology, it is being argued that rewarding India through this deal for not signing the NPT would encourage other states also to follow suit, and also set a precedent for future proliferators to develop their nuclear programs without worrying about sanctions. However, to counter this argument it is also being alleged that though India did not sign the NPT but it has always presented an example of responsible nuclear state by never helping proliferation of nuclear weapons or providing the technology to the rogue states like Libya or Iran despite lucrative energy deals in return for such help. Therefore, India cannot be put in the bracket of the rogue states for denying the technology or imposing the sanctions.

The U.S. stand towards the nuclear deal with India in the opinion of some scholars presents a good case of the double standard, however U.S. policymakers have not only rejected this argument but also said "We treat India, a democratic, peaceful friend, differently than we treat Iran and North Korea and we're very happy to say that. India is inviting the IAEA in, Iran is pushing the IAEA out. India is playing by the rules. Iran is not. If that's a system of double standards, we're very proud to establish that double standard on behalf of a democratic friend."[\[16\]](#)

Actually the U.S. move is driven by both strategic and economic considerations. Strategically, Washington perceives India as a potential counterweight to China, and by improving the nuclear relationship it aspires to bring changes in political relations between the two states. In economic terms, the United States would like to help India build a number of nuclear power reactors to fulfill the energy needs of its fast-growing economy and cut the dependence on pollution-creating hydrocarbon fuels. As India is expected to order several nuclear power reactors, therefore ultimately U.S. companies would earn benefits from such sales to India.[\[17\]](#)

In fact over the last thirty years, India and the United States both have paid the price of not having a good relationship with each other. India has paid a heavier price than the United States for not joining the NPT in 1968, and also for its nuclear tests conducted in 1974 and 1998 by way of attracting various kinds of sanctions imposed by the international community. However, initially the sanctions did not create much problem as India's nuclear program was in its infancy, but as India has developed its nuclear program further and has succeeded in developing a workable nuclear deterrent, it is believed that the additional restrictions on nuclear cooperation would adversely affect India's civilian energy program and economic progress than its nuclear weapons programs. At present, India has a good understanding of the nuclear fuel cycle; techniques for using thorium as fuel; produced an arsenal of nuclear weapons; and also developed civilian nuclear power program. For further advancement now India wants access to enriched uranium and also the right to reprocess the spent fuel, but without any conditions on its nuclear weapons program. The United States feels that the U.S.-India nuclear deal, would on the one hand help India to fulfill its energy related needs and on the other would also bind India through international

agreements to continue its responsible nonproliferation policies and thus help meet international non-proliferation goals.[18]

In India though all the opposition parties have shown their displeasure towards the Indo-U.S. deal but the Congress Party of India and Prime Minister Man Mohan Singh have been vigorously arguing in the favor of the nuclear deal by emphasizing that this deal is meant to end India's isolation in the field of nuclear technology and all the nuclear scientists have also favored it as a historic agreement. The Nuclear Suppliers Group has also agreed to supply nuclear material to India on account of this agreement. The Congress Party also feels that to meet its growing energy demands, electricity production through nuclear energy has become a necessity for India, therefore, India needs this agreement urgently to move with other countries, like France, which gets 78 percent, Germany 30 percent and the United States 20 percent of its electricity from nuclear energy.[19] It is also being argued by the Congress Party leadership that this would not only help in electricity generation but also in medical and scientific research, and high-technology. It would also allow more investment in other areas by U.S. firms and in case of failure India would revert back to the primitive stage or to the status prior to 1974, and all the growth and development would be stunned. Some scholars have also argued that despite many claims, India's energy needs have not been met either by hydro-electric potential or coal for the last 50 years and in order to meet India's full potential there is a need to provide unhindered access to technology, investment, markets and higher education. This need could only be fulfilled by the nuclear energy, therefore, this deal is a must for India's progress and development.[20]

## Controversial Issues of the Deal

Following the U.S. President's visit to India in March 2006, the U.S. Congress also took up the agreement and formally made it into legislation after the committee level deliberations and conciliations in terms of words by both the House and the Senate. The Congress made substantive modifications to the agreement by adding conditions such as limiting the reprocessing rights of India over spent fuel as well as restraints on its ability to conduct nuclear testing. The legislation also required the President to issue an annual certification to Congress stating that India is abiding by the clauses of the agreement. President Bush signed the bill on 18 December 2006, making it a legal instrument. On 1 August 2007, U.S. and Indian negotiators concluded a separate technical agreement under section 123 of the U.S. Atomic Energy Act, which spells out the precise terms, conditions, responsibilities, obligations and promises that each party undertakes. [21]

Through this legislation—in the form of the Hyde Act—for the first time in history the United States, it has ratified nuclear cooperation with India and opened the way for giving India access to American nuclear technology with limited safeguards to discourage possible proliferation. While it was passed by the United States, the ratification by the Senate and the approval of the forty-five nation Nuclear Suppliers Group that control exports of nuclear materials is also required for any further movement.[22] As the legislation, known as Hyde Act, has imposed restrictions on how India could utilize U.S. nuclear supplies, therefore the implementation of the agreement has received a setback because of the opposition by the Communist parties that support India's present UPA government from outside. Actually the leaders of almost all the political parties of India have categorically expressed their dislike and apprehensions for provisions that provide for cutting off aid if India conducts any future nuclear tests and the return of the all nuclear material or equipment provided by U.S. suppliers.

The opposition parties have also been demanding that the clause that prohibits India from reprocessing any fuel provided for power plants be removed from the text. They have also expressed dislike towards the clause that requires the U.S. President to annually certify that India is complying with the rules as they believe that this would allow for U.S. meddling in its nuclear program and also violate the sovereignty of India. Taking note of objections by India and the delay in working on the modalities of the deal, U.S. officials have opined that despite India's

reservations the United States would make no such concessions to India that would run counter to the Hyde Act as the ball was in Indian court. "We will honor every aspect of the Hyde Act. A collapse of the talks, would seriously undercut our hopes for the relationship... The process has been held hostage to political crosswinds in Congress and the Indian parliament."<sup>[23]</sup> The U.S. approach has given another reason for the opposition parties as well as the allies to rally together to oppose the deal.

On account of the prevailing circumstances it is being felt that it would be difficult for the United States to fulfill its obligations and similarly in a coalition government without the approval of the coalition partners, India would also not be able to move forward with this deal. In view of the problems India's Prime Minister is facing to develop consensus and approval of the coalition partners the future of the deal looks bleak as the UPA allies, the left parties, are adamant on not supporting the deal. They have threatened to withdraw support from the government even at the cost of pushing the country to mid-term poll. In the United States apprehensions have also already started to find their expression among Congressmen, many of whom think that this deal is more in India's interest as India would be able to conduct the nuclear test and also develop its military program without any problems. They have argued that India's prototype fast breeder reactors, which can produce significant amounts of weapons-grade plutonium, have been kept out of this agreement, and there would not be any problem for India's weapon program.<sup>[24]</sup> A group of U.S. non-proliferation specialists expressing their apprehensions and concerns about the deal wrote to members of Congress urging them to reject any pact that falls short of American domestic laws. They feel that the result of such pacts could be reduced accountability, increased Indian nuclear weapons production capacity and damage to the credibility of U.S. non-proliferation efforts. Unlike 177 other states, India has so far refused to sign the Comprehensive Test Ban Treaty and is, under no legal obligation not to test. They urged the Congress to ensure that, 'the agreement for nuclear cooperation must explicitly state that renewed nuclear testing by India would lead to the termination of U.S. nuclear assistance.'<sup>[25]</sup>

Though, in view of India's unilateral moratorium on nuclear testing it is being felt that these requirements would pose no problem, however, on the other hand, it is also being argued that India's insistence on assurances that commercial nuclear contracts should continue even in case of nuclear testing would breach the agreement. India's relationship with Iran is also a matter of concern for U.S. Senators and think tanks. On account of India's relations with Iran the Senators have also expressed their apprehensions about the deal. They feel that in view of India's activities like agreeing to military-to-military working groups and joint training exercises with Iran, Indian companies selling Iran precursor chemicals for rocket fuel and chemical weapons, passing nuclear secrets to Tehran, entering into agreements with Iran to develop oil and gas resources and helping Iran to develop more effective batteries for Iran's submarine fleet, there is an urgent need to reconsider the nuclear deal.<sup>[26]</sup>

## **Issues of Concerns in India and the United States**

There is no denying that this agreement has opened new vistas of cooperation between India and the United States, but it cannot be denied that despite the hoopla, the pin-pricks and pressure politics are still present. U.S. objections regarding the supply of nuclear fuel by Russia to India's Tarapur nuclear reactor are a cause of concern. As within three weeks of the March 2006 announcement of the deal, Russia agreed to supply uranium to refuel two reactors at India's Tarapur nuclear site but the United States feels that any action should be taken only after India fulfills its obligations under the historic Indo-U.S. nuclear deal, which India has not yet done.

Interestingly, low-enriched uranium for Tarapur's reactors has been supplied by NSG member states since these reactors came in to being in 1969. Under the present deal also if the United States fails to go ahead with the deal, the other NSG countries will seek to replace the United States in cooperating with India and the United States would hardly be in a position to object to the cooperation that it had first proposed. India, on the issue of the fuel supplies for the Tarapur



plant by Russia also made it clear that nuclear fuel was required urgently to prevent shutting down the Tarapur plant, and that it did not violate any NSG guidelines or international law. India also clarified that it had requested the United States to supply nuclear fuel, but as this was not possible under U.S. law, it requested this of Russia, which agreed—and that this issue was separate from the Indo-U.S. civilian nuclear deal.<sup>[27]</sup> In view of this, it seems that in order to pursue its civil nuclear-related interests, India would have to accommodate the United States' pressures, and without the United States' consent, it would be difficult for India to get such supplies from other nuclear powers.

## Proliferation Concerns

Many critics of this agreement, both in the United States and India, have expressed their apprehensions about it. They feel that India may not have signed the NPT, but that the United States—by signing the NPT—had also promised not to help other countries, and only those countries who have signed it could benefit from trade in civilian nuclear technology, and that allowing nuclear trade with India is bound to break this rule.<sup>[28]</sup> It is also being felt in some quarters in America that this agreement is more favorable to India and its military program than to the United States, as this deal allows India enough fissile material for producing nuclear weapons. They feel that this would be against America's worldwide nuclear non-proliferation agenda. In some segments of India as well, there is a feeling that the UPA government, in its enthusiasm to develop good relations and a nuclear deal with the United States, has compromised India's interests.

Although India has been able to keep its military option open, it will now be under the constant pressures and vigilance of the international agencies and in view of the past record of the United States with regard to such supplies, India would have to work with utmost caution. Ashton B. Carter<sup>[29]</sup> has opined that Bush's historic concession to India could create a serious blow to the international non-proliferation regime and could set a dangerous precedent for rogue countries like Iran, North Korea and other aspiring nuclear powers. He also feels that the United States in order to win the support and cooperation of India in confronting the challenge that a threatening Iran, a turbulent Pakistan and an unpredictable China may pose in the future gave away something on the nuclear front to gain much more on other fronts. He has also argued that the deal is clear about what the United States would concede but it is not clear as what India would give in return and such imbalance would leave the United States at the mercy of India's future behavior. The deal has also given a message that forgiveness comes to proliferators who wait long enough, and that the nuclear aspirants' could bypass the NPT if they waited long enough.

In view of this it is being apprehended that the deal would encourage other countries to develop their nuclear programs, and this would harm the United States' vital interest of preventing nuclear proliferation, lead to the spread of weapons-grade nuclear material, and also unleash a regional arms race in which China and Russia could be expected to do the same for Pakistan and Iran as the United States would do for India. In such an atmosphere, it would be difficult for the United States to get support for sanctions against the countries known as nuclear rebels, such as Iran and North Korea.<sup>[30]</sup> It is also being feared that it would be difficult for the United States to convince the forty-five nation NSG, and particularly China and Japan, to change their policies to exempt India from nuclear export controls.

U.S. objections to India's search for alternative energies are also noteworthy, as the United States wants to restrict India's attempts to develop the India-Pakistan-Iran gas pipeline. The United States believes that the nuclear deal will end India's dependence on the oil from Persian Gulf; however, despite being the pioneer in a field of nuclear energy, the United States is equally interested in maintaining a continued and unhindered flow of oil from the Persian Gulf for satisfying its own needs, which means the United States is free to look after its interests, but that India's hands would be tied. In view of this, it can be said that though the integration of India in

the field of nuclear energy is a welcome move, but India needs to tread cautiously to protect its interests.

## **Domestic Political problems of India and the United States**

India, due to the differing opinions and concerns, so far could not lock the deal as almost all the political parties have opposed this deal and warned Prime Minister Manmohan Singh about the repercussions of signing this deal. Despite Prime Minister's assurances and debates in the parliament about the intent of the United States in the deal and India's freedom of action, the political parties could not be satisfied. The left parties, the main allies of the UPA coalition government are dead-set against this deal. They have gone to the extent of threatening to withdraw support from the government if it moves forward in this direction. This has created a climate of political uncertainty as the prospects of the mid-term poll is looming large. The left parties feel that the Indo-U.S. civil nuclear deal works against an independent foreign policy and the sovereignty of India, as India would have to make compromises to keep the tap of nuclear fuel supplies open. They have argued that India under U.S. pressures would compromise its freedom of action as it did during voting on Iran in the IAEA. In their opinion, the compulsion of economic, political and military cooperation which is attached with this agreement would make India a U.S. stooge. They think that India would also be forced to sign a defense framework agreement which would force it to purchase defense equipment at higher cost from the United States only.

The left parties also have argued that due to U.S. pressures, the government is delaying the agreement with Iran for the gas pipe line. They also feel that India's nuclear program would face a setback and electricity produced through the imported reactors on account of its cost would be beyond the reach of the common people. More so, India has not been assured a life-long supply of nuclear fuel and no assurances have been given for reusing its nuclear fuel. The U.S. Hyde Act also stops the transfer of technique, and also makes the provision for taking back all the equipment in case of a nuclear test by India. The U.S. Government can cancel this agreement according to its choice and thus leave India in the lurch. They have regarded the Hyde Act as highly objectionable and against the independence, national pride and sovereignty of India.

Actually the controversial Section 123(a)(4) of the U.S. Atomic Energy Act gives the U.S. Government the right to ask for the return of any nuclear material and equipment transferred under this deal and any special materials (like plutonium) produced through the use thereof, if India conducts a nuclear test or terminates or abrogates the IAEA safeguards agreement. U.S. officials have made it clear to the Congress that the nuclear deal with India is not aimed to help India to assemble a stockpile of nuclear fuel for conducting another nuclear test or to relax the IAEA safeguards agreement. Section 103(a)(6) of the Hyde Act stipulates that if United States exports were to be suspended or terminated pursuant to U.S. law, it will be U.S. policy to seek to prevent transfer of nuclear equipment, material or technology from other sources also.[\[31\]](#)

Interestingly the July 2005 Joint Statement grants India the de facto nuclear weapons power status but the Hyde Act denies the technologies in case of a nuclear test by India. This act also requires a guarantee that no material transferred under this deal or produced through the use of any material, reprocessed, enriched or otherwise altered in form without the prior approval of the U.S. Government. Another contentious issue is the denial of technology transfer for uranium enrichment, spent-fuel reprocessing and heavy water production. India would not have the right to reprocess any spent fuel to be discharged from imported reactors or arising from natural uranium bought from abroad, without prior permission of the United States. Without such reprocessing, the major objective of using the separated plutonium from the spent fuel, in a subsequent civilian breeder reactor or AHWR, cannot be fulfilled. These two provisions in the Act directly negate the lifetime fuel supply assurances contained in the Separation Plan of March 2, 2006.[\[32\]](#) The opposition parties feel that these sections of the Hyde Act need to be amended if India is to be assured about uninterrupted fuel supplies.

As far as the generation of electricity from nuclear energy is concerned the left parties have argued that it is not a very popular source of energy even in the developed world because of the higher cost of the electricity generated through it, and in India also only 9 percent of its needs would be fulfilled by this source, and at a very high cost. These parties have also argued that as a result of the cost factor and other expenses even the United States has not installed or built any nuclear reactors in the last twenty-one years.[33] The major opposition party of India, the BJP, also feels that the aim of this deal is to prevent India's indigenous nuclear program which is being run without foreign assistance. The BJP has also argued that the electricity produced by the imported reactors would be the most expensive for the country to afford. They have also questioned the rationale of the condition of separation of civilian and non-civilian programs which is not applicable in the nuclear haves, but in India only. They feel that on account of this the fast breeder reactor would also be brought under the preview of IAEA which is against the interest of the country. The BJP also feels that neither is India being given the status of the nuclear country nor would it be able to conduct a nuclear test for the fear of a break in the supplies, or the taking back of the technology; therefore, the deal is not useful for India. In BJP's view, this agreement is a nuclear non-proliferation treaty in a new form which India is being asked to sign.

It has also been argued by some scholars that even though the deal might be the best for India but the U.S. dedication to the deal and willingness to welcome India in the nuclear club as an honorary member creates some doubts about U.S. intentions. They believe that when nuclear non-proliferation has been an article of faith for U.S. policymakers, the deal cannot be without double-motives because the United States could achieve the access to the Indian markets, defense sales to India, and the strategic partnership to encircle China, even without the Indo-U.S. nuclear deal. They feel that if India could master the three-stage recycle through breeder reactors that use thorium and not be dependent on imported uranium, it would leave India with adequate fissile material and energy production and make it independent of American control. This could have devastating consequences for U.S. interests which the United States would like to prevent.[34]

In view of this it is being felt that to control India and at the same time enroll as an ally, the 123 deal was concluded. The Hyde Act aims to arrest, roll back and eventually abolish India's nuclear capability as it clearly mentions that if the United States stops supplying nuclear material to India following a treaty violation, it will not allow other members of NSG to supply it. Since the United States wishes to maintain its global superiority by any means and deter the potential competitors therefore, if any country tries to challenge or alter the U.S. scheme of things or interests, it would be put in the list of potential competitors. In view of this no friendship and no allies could be permanent hence; present allies like China and India could become rivals in the future and could be seen as emerging threats to U.S. global designs. In view of this the present interest of the United States for the deal is also not without purpose, therefore, U.S. officials have been stating that India should move swiftly in this direction and lock the deal as early as possible otherwise the relationship would suffer.

This could be gauged by the message which the three powerful U.S. Senators during their visit to India gave to Prime Minister Man Mohan Singh by telling him that India should complete the deal formalities before April 2008, otherwise the deal would run into difficulty as the time was running out very fast for the deal.[35] Surprised at the opposition to Indo-U.S. nuclear deal in India, former U.S. Deputy Secretary of State Strobe Talbott has said "it was a classic case of putting a bullet in a gift horse's forehead" as he was not sure the next U.S. administration would offer a similar deal.[36] Ironically, Talbott, has been critical of the nuclear deal as India has not yet signed the Comprehensive Test Ban Treaty. On the other hand the U.S. corporate world is also disappointed by the confusion and delay in locking the deal as this deal had opened a very wide scope for investment and business. France, Russia, Germany and Japan are also disappointed as they had also aspired to gain economic benefits through this deal by supplying nuclear technology to India. The multinational companies that have spent a large amount of money in lobbying to get it ratified in the U.S. Congress in the hope that they would receive contracts from India are also losing

hopes due to the delay on the part of India, as they also fear that the next administration might not be so interested or favorable towards the deal. The disappointment and pressures of the companies have also emerged as a source of irritation in the U.S. administration. In view of the problems and controversies some other critics have also opined that if the Indo-U.S. relationship is linked to only one issue of the nuclear deal, then it is not based on maturity and thus not worth taking.[37]

## Prospects

Although, the United States has made it clear that the ratification of the treaty is India's internal issue and the United States would not want to interfere but like the Indian Prime Minister Manmohan Singh, U.S. President Bush also wants to go down in history as the one who brought a great change in Indo-U.S. relations. Bush aspires to present it as his success but the dilly-dallying is not allowing this to happen and increasing his worries. Bush is also facing the annoyance of the multinationals because of the apprehensions of losing business prospects in case the Democratic Party takes over, as it would not be as interested in the deal as the Bush administration.

Also, in India, U.S. pressures on India's foreign policy directions like relations with Burma, ties with Iran, or supply of gas or the Iran-India-Pakistan gas pipeline, have all provided the opposition parties a new weapon to oppose the deal. They feel that since India following the U.S. line of action has voted twice in the IAEA to sanction Iran's nuclear-weapons program, these pressures should not be applied on India. They feel that U.S. pressures clearly show the opportunism and bullying attitude of the United States.

However, it is also clear that if the deal fails it would make India more dependent on Iran for energy, weaken its economic prospects and thus defeat the U.S. objective of developing a strategic partnership with India. As it is also being felt that the circumstances for the nuclear deal are most favorable in the United States during the Bush administration and if there is a change of party in the White House such opportunity would be lost. Therefore, to fulfill these requirements, it is being suggested that India must move quickly to seal the deal in time. They believe that the stand of the left is not based on reasons but only on anti-Americanism and the BJP have also found common cause in spreading anti-Americanism in Indian polity. They also point to the fact that though the BJP has also joined the left parties in opposing the deal, but it was the BJP under the NDA government which began the exercise of the nuclear and strategic collaboration with the United States; therefore the BJP's opposition of the deal is not for the cause but only for gaining political leverage. The former U.S. diplomat Strobe Talbott has questioned the BJP's stand on the nuclear deal. While talking to a news channel during his recent visit to India he informed that the Vajpayee-led government was ready to settle for much less than what has been offered by the United States to the UPA government, therefore, he was unable to understand how BJP could oppose it. The BJP has called Talbott's remarks ignorant.[38]

In view of this it is being suggested that India should not waste the opportunity offered to it by the changing power politics equations in such petty issues as regionalism, communalism, caste and class divisions, which have always bothered India and hampered its global aspirations. India should move forward and seal the deal and also become a part of the new security and strategic arrangements and partnerships emerging in the world to meet the challenges of the energy crisis, increasing pollution, and environmental problems.[39] India and the United States therefore need to consider all alternatives other than letting the deal fail because much has been invested politically in the deal and neither side can afford to abandon the path that the two leaders adopted in 2005. The 123 Agreement is not an end in itself, but a means to move in the direction of securing the cooperation of the other members of the Nuclear Suppliers Group.[40]

Due to the stakes involved in the deal, Indian Prime Minister Man Mohan Singh while arguing in the parliament also openly accepted that India cannot afford to miss the nuclear bus if India aspires to retain its growth, progress and play its global role. The External Affairs Minister Pranab Mukherjee also commented that the deal was India's passport to the world. The U.S. ambassador to India David C Mulford has also favored the completion of the processes involved in the deal during the tenure of the Bush administration, failing which he has also warned that "practical problems" could push the deal to 2010.[\[41\]](#) In order to assure the members of parliament about the fine points and India's obligations under the deal, Pranab Mukherjee stated in both houses of parliament that "The Hyde Act is an enabling provision that is between the executive and the legislative organs of the U.S. Government. India's rights and obligations regarding civil nuclear cooperation with the United States arise only from the bilateral 123 Agreement that we have agreed upon with the United States, India and the International Atomic Energy Agency have made considerable headway in negotiations for an India-specific safeguards agreement." He also emphasized that the deal would signal an end to the unfair technology denial regimes and sanctions India has faced for over three decades. But the statement could not satisfy the Left parties as they were not ready to buy the argument that, the Hyde Act's implications do not apply on India.[\[42\]](#) In view of India's political dilemma, U.S. Senator Biden during his visit to India also stressed that the remaining steps in the nuclear deal need to be completed in the next three months so that the Congress could take up the 123 agreement in June and ratify it in July. This timeline gives India just three months to wrap up the IAEA safeguards agreement, convince the allies and acquire the NSG waiver.[\[43\]](#)

As other countries like France and Russia are also keen on opening trade with India, but these countries are finding themselves unable to move in this direction because of the present restrictions under U.S. law, therefore, it is being opined that there is an urgent need to complete the formalities of the deal in time. Since the deal is being seen as a device to opening the door to international cooperation for India hence, the necessity of finding a middle path to reach to some conclusion is also being felt. Russia has also shown its willingness to sign a nuclear agreement with India without waiting for lifting of the international restrictions on technology transfer to India. In fact in January 2007 during the Russian President Putin's visit to India, a Memorandum of Intent for the construction of four nuclear power reactors in Kudankulam in Tamil Nadu was signed and these overtures exhibited Russia's keenness to formalize the deal which does not carry clauses like the Hyde Act, therefore India should decide on it also soon.[\[44\]](#) Russia's offer could be taken as a rare example of friendship but there are other countries also that have been looking anxiously towards the completion of this deal. Therefore, India needs to take these issues also into consideration while taking any decision. India being an open democratic society, could chart its course on the basis of opinions expressed by the experts and think tanks in a way so that its economic growth and progress is not hampered.

## Conclusion

Though there is no denying the fact that there are various complications which have made the task of the Congress-led UPA government of India very tough, but in view of the limited alternatives the dilemma seems real. On the one hand, the option of generating clean energy through nuclear fuel due to its inherent cost would not only be very expensive, but it would also very difficult to sustain it for a long time due to the cost factor. But on the other hand in view of the limited options for other sources of energy and pressures of the international community for using clean energy sources on account of the threat of global warming there is little choice left for India. Since India has also willingly imposed a moratorium on further nuclear tests after the 1998 nuclear test, therefore the acceptance of the civil nuclear deal would only assist India in its economic pursuits and open the door for other international cooperation. If India has to sustain its economic growth and use its full economic potential, India would have to move forward and clutch the deal. But as India has always maintained its freedom of action and independent foreign policy, therefore any pressure on India would be seen as a compromise in its long-held stand by the concerned people. In fact it is a catch-22 situation for India, because if the Congress-led UPA



government decides to proceed further with the deal, the coalition partners (left parties) would withdraw their support from the government and push the country towards political instability, and if India fails to complete the process of the nuclear deal in time, the future of the deal would be in jeopardy.

Actually, in recent weeks, a dramatic situation was witnessed in the Indian political scene with the political parties of India being divided into two clear camps—the supporters and non-supporters of the Indo-U.S. civil nuclear deal. This scene emerged with the Manmohan Singh-led UPA government's decision to go to the IAEA and the NSG to fulfill the requirements of the deal, and the left parties withdrawing their support from the government. This situation left the political ground open to all sorts of pulls, pressures, horse-trading and manipulations. The country observed an ugly political scene where not only the Congress-led UPA government received support from unexpected quarters, but allegations were also made in the parliament about how money changed hands to sustain and save the government. The doubts on the stability of such a government which has survived by using every possible tactic are still being raised. However it is also being assumed that with the government passing the hurdle of sustaining the confidence motion, it would be able to move forward in time to finalize the deal before the United States goes to the election mode, and ensure the economic growth of the country through nuclear energy. It is still a wait-and-watch situation because the time constraints could also decide the fate of the deal. In view of the complications, problems and dilemmas, therefore, India not only needs to tread this path cautiously, but also walk the tight-rope of progress and growth with confidence and control.

## About the Author

Dr. Annpurna Nautiyal is a professor and the head of the Department of Political Science, HNB Garhwal, University, Srinagar, Garhwal Uttarakhand 246174, India. Presently she is also the Dean of the Faculty of Arts and Coordinator of the Special Assistance Programme for advance research in women issues sponsored by the University Grants Commission, New Delhi. She was also awarded the Fulbright Scholarship to work in the George Mason University, Fairfax, Virginia. Although, her basic area of interest is international relations, but she also has a keen interest in the regional and national issues, and in particular the problem of women empowerment in the hill areas of Uttarakhand. She has published several articles in reputed journals and authored/edited five books.

For more insights into contemporary international security issues, see our [Strategic Insights](#) home page. To have new issues of *Strategic Insights* delivered to your Inbox, please email [ccc@nps.edu](mailto:ccc@nps.edu) with subject line "Subscribe." There is no charge, and your address will be used for no other purpose.

## References

1. Sridhar Krishnaswami, "[Pranab, Rice dawdle on N-deal Again](#)," *Hindustan Times*, March 24, 2008.
2. Annpurna Nautiyal, "[Current Trends in India-U.S. Relations: Hopes for a Secure Future](#)," *Strategic Insights* V, no. 4, April 2006.
3. Mary Kissel, "[Opinion: Delhi Drama](#)," *The Wall Street Journal Online*, September 4, 2007, A16.
4. International Energy Agency, [World Energy Outlook 2004](#), 74.
5. Ashton B. Carter, "[America's New Strategic Partner?](#)" *Foreign Affairs* 85, no. 4 (July/August 2006), 40.

6. Rahul Tongia, "[The Political Economy of Indian Power Sector Reforms](#)," Working Paper, no. 4 (Revised), Program on Energy and Sustainable Development, Stanford University, December 2003.
7. Mark Bucknam, "[Power to the People of India: U.S. Nuclear Cooperation with India](#)," *Strategic Insights* VI, no. 1 (January 2007).
8. See reference no. 2, page 9.
9. Mohamed El Baradei, "[IAEA Director General Welcomes U.S. and India Nuclear Deal](#)," *International Atomic Energy Agency Press Release* 2006/05, March 2, 2006.
10. Condoleezza Rice, "[Our Opportunity With India](#)," *Washington Post*, March 13, 2006, A15.
11. Sadanand Dhume, "[Is India an ally?](#)," *Commentary* 125, no. 1 (January 2008).
12. Amit Baruah, "Waiting for India to process nuke deal, U.S.," *Hindustan Times*, January 30, 2008.
13. T.V. Paul, "The U.S.-India nuclear accord: implications for the nonproliferation regime," *International Journal* 62, no. 4 (Autumn 2007): 854.
14. C. Uday Bhasker, "[N-Deal Enters Choppy Waters: the Implications](#)," *Rediff India Abroad*, August 19, 2007.
15. Karthika Sasikumar, "India's Emergence as a 'responsible' nuclear power," *International Journal* 62, no. 4 (Autumn 2007): 825 (20).
16. David Ruppe, "U.S. acknowledges 'double standard' on Indian deal," *Global Security Newswire*, April 12, 2006.
17. See reference no.13.
18. R. Nicholas Burns, "[Under Secretary for Political Affairs On-The-Record Briefing on the Status of the U.S.-India Civil Nuclear Cooperation Initiative and the Text of the Bilateral Agreement for Peaceful Nuclear Cooperation \(123 Agreement\)](#)," U.S. State Department. Washington, DC, July 27, 2007.
19. Steven Mufson, "[Nuclear Power Primed for Comeback Demand, Subsidies Spur U.S. Utilities](#)," *Washington Post*, October 8, 2007, A01.
20. See reference no. 14.
- 21 . See reference no. 13.
22. James Gersten Zang, "Congress OKs Nuclear Pact with India: The Deal, a Major Policy Shift, Provides Access to American Technology," *L.A. Times*, December 9, 2006.
23. Neil King, Jr., "U.S.-India Talks On Nuclear Pact Enter Endgame, Congress Likely to Balk At New Delhi's Terms; Businesses Want a Deal," *Wall Street Journal*, July 14, 2007, A1.

24. Glenn Kessler, "[Nunn Urges Congress to Set Conditions on U.S.-India Nuclear Pact](#)," *Washington Post*, March 19, 2006, A9.
25. Sridhar Krishnaswami, "[Reject N-deal if it falls short of domestic laws](#)," *Rediff India Abroad*, May 17, 2007
26. "[Indo-Iran ties worrisome, Senators tell Rice](#)," *Rediff India Abroad*, September 06, 2007.
27. "Russian Fuel for Tarapur within NSG guidelines: India," *Hindustan Times*, March 15, 2006.
28. "[Nuclear Proliferation: Dr. Strangedeal](#)," *The Economist*, March 9, 2006.
29. See reference no. 5, 33.
30. See reference no. 2, 13.
31. A. Gopalakrishnan, "Hyde Act: Return of Equipments Under Hyde Act or Amend U.S. law, or reject nuclear deal," *Rediff India Abroad*, May 14, 2007.
32. Ibid.
33. T P Sreenivasan, "[Nuclear Deal Breakers Still Alive and Well](#)," *Rediff India Abroad*, June 4, 2007.
34. Vikram Sood, "[Fission for Compliments](#)," *Hindustan Times*, November 27, 2007, 8.
35. *Amar Ujjala (Hindi Daily)*, February 21, 2008
36. "Talbot surprised at opposition to N-deal," *Economic Times* (New Delhi), February 27, 2008.
37. See reference no. 3, A16.
38. "Former U.S. diplomat Talbot says he can't understand opposition; 'BJP was game for a lesser N-deal,'" *Hindustan Times* (New Delhi), March 2, 2008.
39. See reference no. 31.
40. "Bush Best Bet, Democrats Unlikely to Pass Pact: Expert Washington," *Hindustan Times*, January 29, 2008.
42. "'We're not bound by Hyde Act': Pranab statement in Parliament," *Hindustan Times*, March 4, 2008
43. "[N-deal: Pranab going to U.S. next month](#)," *Economic Times* (New Delhi), February 27, 2008.
44. "[Now for a Deal With Moscow](#)," *Hindustan Times*, December 23, 2007.